

THREE AND FOUR-SIDED, FLOORED STRUCTURES, REGULATORY
CLASSIFICATION OF

APR 2 1987

MEMORANDUM

Subject: Regulatory Classification of Three and
Four-Sided, Floored Structures, OSW-185

From: Marcia E. Williams, Director
Office of Solid Waste

To: Karl Bremer, Acting Director
Region V Solid Waste Branch (5HS-JCK-13)

Thank you for your patience in waiting for our response to your memorandum of April 23, 1986, requesting guidance on how nine examples of three and four-sided, floored structures should be regulated -- as tanks or waste piles. As you noted, the ramifications of these decisions are significant since tanks and waste piles are subject to different regulatory standards. For example, waste piles are subject to the land disposal restrictions and have lost interim status unless the November 7, 1986, certification deadlines were met.

We have been having a great deal of trouble and have spent a great deal of time in an effort to develop a methodology that could be used to identify these various odd-shaped units. We believe that such an approach is necessary to ensure that similar units located throughout the country can be classified on a consistent basis by Regional and State permitting authorities. Unfortunately, there is a great deal of overlap with respect to the definitions of "tank" and "pile" found at 40 CFR 260.10. This overlap can create a problem when it is necessary to identify certain specific units such as those described in the attachment to your memo. We concluded that the only viable long-term solution is a regulatory "fix" that will be described in detail below.

For the short term, on the advice of our Office of General

Counsel and the Office of Waste Program Enforcement, we would advise that individual units be identified identically to the applicant's Part A designation unless the unit clearly cannot be

a specific type of unit (e.g., flowing liquids cannot be managed in piles; primarily earthen units cannot be tanks). If permitting or closure requirements are deemed inadequate, we would use the corrective action (assuming there is a permitted unit at the facility) and omnibus authorities to impose additional requirements, as necessary, to protect human health and the environment. the advantage of this approach is that it provides the most legally defensible position in view of the ambiguities of the various regulatory definitions. The disadvantages include our inability to use omnibus authorities for 90-day accumulation and wastewater treatment tanks that do not require RCRA permits, and our inability to apply corrective action requirements to these same units at facilities with no other permitted units.

As explained above, our long-term strategy for dealing with these units would be to make regulatory changes as needed. In that regard, we are considering a regulatory fix that we would pursue as expeditiously as possible. This approach involves reviewing the various definitions found in 40 CFR 260.10 including those for (a) tanks, and (b) piles, and (c) surface impoundments, and miscellaneous units under Subpart X. While various definitions tend to overlap (for example, both tanks and piles can accept solid, non-flowing waste), we are able to make certain distinctions. For example, the definition of tank states that tanks contain materials; the definition of a pile states that a pile is a noncontainerized accumulation of solid, non-flowing hazardous waste.

Therefore, our approach to classifying these units would be to focus on the terms "contain" and "noncontainerized." the methodology that we have developed to classify these units is to first review the regulatory definitions. In general, this enables one to distinguish tanks and piles from surface impoundments and Subpart O or Subpart X units. However, there is considerable overlap in the definition of tank and pile. Where either definition might apply, we would ask the question 00 Is containerization a function of the structure or is it a function of the waste itself? If the waste is contained within the unit by virtue of the fact that it is a cohesive solid, the unit is a pile. If the unit would contain any waste, including a free-flowing liquid, it is a tank.

We would describe this approach in a Federal Register notice and, in the same notice, would propose to amend the regulatory definitions of pile and tank, as required, so that this methodology could be employed nationally. For your information, we are providing an attachment that classifies each of the nine units based on our use of the proposed methodology.

-3-

We welcome your input in critiquing our long-term strategy. Additionally, if you would like to discuss this matter in more detail, please have your staff contact either Bob Dellinger, Bob April, or Bill Kline of my staff at (202) 382-7917.

Attachment

cc: Hazardous Waste Branch Chiefs, Regions I-IV, VI-X
Lloyd Guerri, RCRA Enforcement
Matt Hale, Permits Branch
Robert Tonetti, Land Disposal Branch
Mark Greenwood, Office of General Counsel

ATTACHMENT I

Proposed Long-Term Approach Applied to Nine Specific Units

Unit 1 is a four-sided structure used to store dry waste on a floor that slopes towards the part of the building that has three doors designed to admit front-end loaders and dump trucks. The building floor is not designed to contain the waste (that is, if the material being stored in the structure were a liquid, it could escape). Although the company has designated the unit as a 90-day storage tank, our methodology would classify this unit as a waste pile with some wind dispersion control.

Unit 2 is a four-sided structure with windows and a 20-foot opening partially closed with a 3-foot removable steel barrier. This unit was originally identified on Part A of the permit application as a storage waste pile, and Region V correctly denied a subsequent request to redesignate the unit as a tank. Applying our methodology, we would classify this unit as a waste pile. If the waste were a liquid, it could escape; thus, only the characteristics of the waste would allow it to be contained. The structure is not designed to contain waste.

According to a consent order between the State and the company, Unit 3, when built, will either treat reactive waste in gondolas or in free form on the floor by adding water to the unit. If the unit treats reactive waste in gondolas, the unit serves as a _264.175 containment system for containers and should be subject to the Subpart I container regulation. If the wastes are treated in free form on the floor, the unit cannot be a waste pile since the unit will be flooded with water, with the water contained during waste treatment. Therefore, the unit is a tank when waste is managed on the floor in such a manner that all the waste is kept within the unit. However, if the waste is mounded higher than the retaining sides of highest level of the floor, then the unit would be subject to the Subpart X regulation, proposed on November 7, 1986 (51 FR 40726). Specifically, applying our methodology, Unit 3 could be operated, at times, as a container area, a tank, or a miscellaneous unit. While operating as a particular type of unit, the specific unit standards would apply; thus the permit would contain standards for each operating mode for which the unit would be used. To do this, the most stringent

design and operating standards that would apply in each of these situations would be incorporated into the permit. For example, this unit would eventually have to be closed under the most stringent closure requirements applicable to any of its operating modes. Should the permittee maintain that the unit is always operated as a tank, it could be permitted as such. In a case where the height of the waste was found to exceed the height of

the walls, the Region would have a choice of enforcement actions. The Region would either enforce against an improperly operated tank (no freeboard) or a false permit application.

Unit 4 was initially a four-walled concrete tank that flooded a reactive waste with water to render the waste nonreactive. However, one wall has been removed, and the fourth side is now bermed with sand while the unit is inundated with water to render

a reactive waste nonreactive. After treatment, the berm is broken, and the liquid flows into a drain in a concrete slab also bermed with sand. Since the sand berm is not stationary when emptying the unit, the unit is not a tank. Although the waste is nonflowing when covered with water, the unit is not a pile because piles are not designed to contain liquids. Therefore, using our approach, we would classify the unit as an interim status Subpart Q unit, which will eventually be permitted under the Subpart X standards.

Unit 5 is designed to solidify sludges that contain free liquids. From the limited amount of information available about the unbuilt unit, the unit would have a roof, 3 walls, a sloping floor, and a leak detection system. Applying our methodology, this unit would be classified as a tank or a pile depending on its operating mode. If wastes are always kept lower than the floor and wall height, the unit would be a tank. However, if the waste is managed in such a manner that the wastes pile up above the floor and wall height, the unit would be a pile. The containment that is provided in the latter case would partially be a function of the waste being managed, not solely of the design of the structure.

Unit 6 mixes noncontainerized wastewater treatment sludges with lime when the sludge contains free liquids. The floor of the unit slopes towards catch basins which collect the liquids that separate from the piles. Applying our methodology, Unit 6 would be a waste pile. The unit is managed so that waste exceeds the height of the retaining walls. If this waste were a liquid, it could escape the unit. Therefore, we would argue that the structure is not designed to contain waste; the properties of the material allow it to be contained in this unit.

In Unit 7, hazardous waste sludges and nonhazardous wastes would be mixed with sand and coal ash to eliminate free liquids. The proposed unit has a run-off control drainage system that is designed to collect liquids draining into floor drains from the waste pile. This design has a 12-inch reinforced floor over a 6-mil polyethylene sheet, a leak detection system, and a 10-inch reinforced concrete slab underneath. Under our proposed approach, this unit would be a waste pile. Liquids are controlled by drains, not contained. As with Units 1, 2, and 6, the structure is not

-3-

designed to contain the waste, in that slope of the floor is not sufficient to qualify as the fourth side of a four-sided tank.

Unit 8, which is to be closed, contains EP toxic metal dust that has been premixed in a cement truck with another waste to control fugitive dusts. A front-end loader mixes in foundry sand (which contains clays) to render the waste nonhazardous. The unit is concrete, below grade, and has three concrete walls with metal wall extensions that rise eight feet above the sloping floor. Applying our methodology, this unit could either be a tank or a pile depending on how wastes are managed. If waste is never piled up higher than the highest floor level, it would be a tank. However, if waste is piled higher than the level of the concrete wall, it would be a pile.

Unit 9 managed listed and characteristic waste in solid, semi-solid, and liquid form in a below grade, three-walled structure with a sloped concrete floor and a pump-out sump at the bottom. According to the dimensions of the unit, utilizing the maximum capacity of the unit would fill the unit over to the top of the sloping floor. Therefore, under our proposed methodology, it would not be a tank. Although the unit handled liquid waste, the unit would be closed as a waste pile if the waste was kept solid and nonflowing. Otherwise, the unit would need to close as a miscellaneous unit.

In summary, applying our methodology, Units 1, 2, 6, and 7 appear to be waste piles; Unit 4 is a Subpart O treatment unit. Depending on the mode of operation, Unit 3 would either be a containment system for containers, a Subpart X miscellaneous unit,

or a tank. Units 5 and 8 would be either tanks or piles, depending on how wastes are managed, and Unit 9 would either be a waste pile or a miscellaneous unit.

—